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Analysis of Determinant Factors That Influence Economic Growth (Analysis Study in JaBoDeTaBek)

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ABSTRACT
The aim of this research is to partially examine and analyze the influence of infrastructure on economic growth in Jabodetabek. Partially examine and analyze the influence of MSMEs on economic growth in Jabodetabek. The method used in this research uses. This research was conducted in Jakarta Bogor Depok Tangerang Bekasi, and the time used was from 2011-2020. The data was obtained using internet access, namely the Central Statistics Agency (https://www.bps.go.id). The population of this research is panel data on economic variables, namely, Economic Growth, Infrastructure, MSMEs. Meanwhile, the sample is part of the population, namely Java Island, DKI Jakarta, Bogor, Depok, Tangerang, Bekasi, economic variable data for the last 10 year period from 2011-2020. Model Formulation This research uses multiple linear regression analysis and simple linear regression, multiple linear regression, namely regression where the model has more than one explanatory variable, namely several independent variables that are used to explain the behavior of the dependent variable. Infrastructure has a positive and significant effect on economic growth. Infrastructure has a very important role in driving economic performance. The condition of an area's infrastructure not only influences economic development in that area but also the surrounding areas. MSMEs have a positive and significant effect on economic growth. By increasing the number of MSMEs, new job opportunities can be opened, thereby reducing unemployment.

Keywords, Infrastructure, MSMEs, Economic Growth

I. INTRODUCTION

A. Background

Economic growth is a system of economic activities that experiences changes for the better over time so that the goods and services produced will increase. Economic growth basically includes several interactions between the components of human resources, natural resources, capital, technology, etc. Growth must reflect total changes in society or the basic needs and desires of individuals and groups within it to move forward towards better living conditions socially and materially (Todaro, 2011). Economic growth informs the extent to which development of economic activity has been achieved in a certain period, so that economic growth becomes the main target in a growth process for both countries and regions.

Regional economic growth has an important role in the success of the national economy, because if regional economic targets are met, the national economy will also increase because regions are the basis for the formation of a country. Economic growth itself will be proxied by gross regional domestic product (GRDP). GRDP is the additional value of goods and services produced from all economic activities in all regions in a certain period. Regional governments that have succeeded in carrying out the regional development process and improving the welfare of their people are inseparable from the success of managing regional expenditure revenues both from the regions themselves and from central government transfer funds through the APBN effectively and efficiently.

Below is presented economic growth data in Jabodetabek according to the Central Statistics Agency from 2010-2020.

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Table 1Economic Growth GraphJaBoDeTaBekyear 2015-2020

PDRB dalamjuta rupiah						
Kabupaten	2015	2016	2017	2018	2019	2020
Jakarta	1.989,09	2.159,07	2.365,36	2.592,61	2.816,76	2.772,38
Bogor	124,49	131,76	139,56	148,20	156,88	154,11
Depok	37,53	40,26	42,98	45,98	49,08	48,14
Tangerang	479,31	517,90	518,27	613,80	661,65	626,44
Bekasi	205,95	215,93	228,20	241,95	251,50	242,97

This is in accordance with research conducted by Hodrab, Maitah& Luboš (2016), which states that technology has a significant effect on economic growth. Infrastructure is another factor that can influence a country's economic growth. Infrastructure is one of the technical, physical, systems, hardware and software needed to provide services to the community as well as support networks for the community and support network structures so that economic and social growth in the community can run well (Presidential Regulation No. 38/2015). Below is presented data about infrastructure in JaBoDeTaBek as measured by APBN funds for infrastructure in JaBoDeTabek.

Table2APBN Funds for Infrastructure in Jabodetabek Year 2016-2020

regency	Infrastructure in percent					
	2015	2016	2017	2018	2019	2020
Jakarta	16,81	13,44	15,27	12,7	11,73	13,9
Bogor	11,63	13,23	15,44	27,25	44,4	35,72
Depok	19,23	17,52	21,33	35,24	40,84	40,84
Tangerang	68,98	60,43	70,01	68,5	22,62	13,37
Bekasi	15,12	17,23	19,52	21,35	25,78	27,45

Sourcer: Kemenkeu, 2021

Based on Table 2 above, it can be seen that APBN funds for infrastructure in Jabodetabek from 2016 - 2020 tend to increase continuously from year to year. However, growth in percentage still experiences increases and decreases. This shows that APBN funding for infrastructure in Jabodetabek is quite good but still needs to be increased again.

The availability of infrastructure is one of the important things in the context of developing economic development in a region. Infrastructure is also an important part in accelerating the process of national economic development. This is in accordance with research conducted by Seidu et al. (2020), Novitasari, Drestalita&Maryati. (2020), which states that infrastructure has a significant effect on economic growth.

Apart from inflation, several other factors may influence economic growth, namelyMicro, Small and Medium Enterprises(UMKM). UMKMis another factor that can influence a country's economic growth. According to Law Number 20 of 2008, Micro Business is a productive business owned by an individual and/or individual business entity that meets the criteria for Micro Business as regulated in this Law.

Small businesses are productive economic businesses that stand alone, which are carried out by individuals or business entities that are not subsidiaries or branches of companies that are owned, controlled, or are part, either directly or indirectly, of medium or large businesses that meet the criteria for small businesses as intended in this law.

Medium Business is a productive economic business that stands alone, which is carried out by an individual or business entity which is not a subsidiary or branch of a company that is owned, controlled, or part of either directly or indirectly with a Small Business or Large Business with the amount of net assets or annual sales proceeds as regulated in this Law. Below is presented the dataUMKM di Jabodetabekas measured by credit dataUMKM di JaboDeTaBek.

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Table3. Data UMKM di JaBoDeTaBekyear 2016-2020

regency	Data UMKM in Million rupiah					
	2015	2016	2017	2018	2019	2020
Jakarta	120.605	119.799	133.141	153.014	155.074	143.773
Bogor	41.345	43.545	47.254	51.526	53.951	55.355
Depok	33.525	35.255	38.125	41.322	43.313	45.312
Tangerang	29.244	32.359	37.000	45.317	48.203	46.164
Bekasi	63.256	65.357	68.559	71.322	73.515	75.355

source: www.bi.go.id, 2020

Based on table 3 above, it can be seen that UMKM credit data in Jabodetabek from 2016 - 2020 tends to increase continuously from year to year. This shows that the development of UMKM in Jabodetabek is quite good but still needs to be improved.This is in accordance with research conducted by Juminawati et al. (2021), Idehen &Oriazowanlan (2019), Gashi, Ziberi &Sherifi (2021), stated that UMKM have a significant influence on economic growth.

From the economic growth factors above, researchers try to prove it correctly with data. Therefore, researchers narrowed down the research topic, namely the determining factors of economic growth.

II. LITERATURE REVIEW

A. ECONOMIC GROWTH

Economic growth is one of the economic problems of a country in the long term and is an important phenomenon experienced by all countries. According to Todaro (2003), economic growth is the process of increasing output over time, becoming an important indicator for measuring the success of a country's development. Macroeconomic analysis states that a country's economic growth is one of the parameters in a broad perspective and can show how economic activity can give rise to changes in the social structure of society which will produce additional income and prosperity.

SadonoSukirnobelieves that economic growth means fiscal developments in the production of goods and services that apply in a country, such as the increase and number of production of industrial goods, development of infrastructure, increase in the number of schools, increase in service sector production and increase in production of capital goods. To provide a rough picture of the economic growth achieved by a country, the measure that is always used is the real national income growth rate achieved(Sukirno, 2011: 423).

According toSukirno (2011, h. 331) "Economic growth is defined as the development of activities in the economy which causes the goods and services produced in society to increase and the prosperity of society to increase." So economic growth measures the achievements of the development of an economy from one period to another. A country's ability to produce goods and services will increase. This increased capability is caused by increases in production factors both in quantity and quality. Investment will increase capital goods and the technology used will also develop. In addition, the workforce is increasing as a result of population development along with increasing education and skills.

According to(Jhingan 2014, h. 45)The process of economic growth is influenced by two kinds of factors, namely: economic and non-economic factors. The economic growth of a country depends on natural resources, human resources, capital, business, technology and so on, these are economic factors. While economic growth is not possible as long as social institutions, political conditions and moral values in a nation do not support it, this is a non-economic factor.

Regional economic growth has an important role in the success of the national economy, because if regional economic targets are met, the national economy will also increase because regions are the basis for the formation of a country. Economic growth itself will be projected using gross regional domestic product (GRDP). GRDP is the additional value of goods and services produced from all economic activities in all regions in a certain period. Regional governments that have succeeded in carrying out the regional development process and improving the welfare of their people are inseparable from the success of managing regional income and expenditure, both from the region itself and from central government transfer funds through the APBN effectively and efficiently.

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Economic growth in a country is reflected in gross domestic product (GDP). If economic growth improves, people's purchasing power will increase and this is an opportunity for companies to increase their sales. Economic growth is an increase in GDP about a larger or smaller increase. Economic development must pay attention to the extent to which income distribution has spread throughout society and who has enjoyed the results. So the decline in GDP has an impact on the quality of household consumption. If the population's income level is limited, many poor households are forced to change their staple food patterns to cheaper items with reduced quantities (Sukirno, 2016, h. 14).

B. Infrastructure

Infrastructure, according to the Oxford Dictionaries definition, is the basic physical and organizational structure (such as buildings, roads, energy supplies) that is necessary for the operation of society and institutions (SulistijoSidarto and Budi Santoso, 2018. p. 1). The definition of infrastructure in the Big Indonesian Dictionary can be interpreted as public facilities and infrastructure (https://kbbi.kemdikbud.go.id/entri/infrastructure, 2019). Facilities are generally known as public facilities such as hospitals, roads, bridges, sanitation, telephones, and so on.

Another definition of infrastructure according to the Presidential Regulation of the Republic of Indonesia Number 38 of 2015, infrastructure is the technical, physical, system, hardware and software facilities needed to provide services to the community and support structural networks so that the economic and social growth of the community can run well (Regulation of the President of the Republic of Indonesia Number 38.2018, article 1, paragraph 4)

Infrastructure in economics is a form of public capital formed from investments made by the government which include: roads, bridges and sewer systems (Warsilah and Akhmad Noor, 2015, p. 361). There are at least a number of infrastructure benefits including (SulistijoSidarto and Budi Santoso, 2018.h1)

a.Increasing connectivity between regions or between countries;
b. Increasing the productivity of a region or country;
c. Increase efficiency in resource allocation;
d. Accelerate equitable development of a region or country;
e. Encourage new investment into the region or country

Kodoatie (2014, h. 92) infrastructure as physical facilities developed or required by public agencies for government functions in the provision of water, electric power, waste disposal, transportation and other services to facilitate economic and social objectives. Adiwarman (2012, p. 288) states that infrastructure is all types of capital that are not owned by individual business companies that make the company's production more efficient. Highways or toll roads can increase the productivity of transport vehicles in terms of transporting the company's output with the same number of vehicles, an electricity network that provides a lot of electrical capacity can avoid inefficiencies caused by extinguishing and fires.

From the opinions of the experts above, we can define that infrastructure is related to the physical system that provides transportation, water, drainage, buildings and other public facilities needed to meet basic human needs in the social and economic sphere. The infrastructure system is the main support for the functions of social and economic systems in people's daily lives. Infrastructure systems can be defined as basic facilities or structures, equipment, installations that are built and needed for the functioning of the social system and economic system of society.

If there are good roads in a country, it can facilitate the transportation of sending raw materials to the factory according to their destination. So this is called infrastructure provided by the government which is called a public good, apart from that, like toll roads, it is infrastructure provided by the government (Stiglizt in Hapsari, 2011). The characteristics of public goods according to their use (consumption of public goods) are non-rivalry and non-excludable rivalry. However, this can have the nature of competition (rivalry) in its use if the goods used by someone cannot be used by other people.

So it can be said that a real public good is if someone uses a good that has no competition and other people can also use the good. If this condition is the opposite, someone cannot prevent other people from using it together, then the item is still considered a public good. This can be interpreted that infrastructure is very important considering that it is a sign of government service to the community.

Apart from that, infrastructure is also related to regional development because this is a characteristic of the rate of economic growth and community welfare. If a region has a better complete infrastructure system, it will have a better rate of economic growth and community welfare

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and vice versa. This can mean that infrastructure is very important in a country because infrastructure is one of the driving wheels of economic growth(Kwik Kian Gie inChaerunnisa, 2014)

C. micro small and medium enterprises (UMKM)

Based on assets and annual turnover, as well as the number of workers it has. UMKM have an important role in the economy, especially in job creation and economic equality. Based on Law no. 20 of 2008 concerning Micro, Small and Medium Enterprises, UMKM are classified as follows:

1. Micro Enterprises:
o Maximum assets of IDR 50 million (excluding land and buildings).
o Maximum annual turnover of IDR 300 million.
2. USmall Business:
o Assets IDR 50 million – IDR 500 million.
o Annual turnover IDR 300 million – IDR 2.5 billion
3. U Medium Business:
o Assets IDR 500 million – IDR 10 billion.
o Annual turnover IDR 2.5 billion – IDR 50 billion contributing to economic growth, innovation and reducing unemployment in various industrial sectors. A small business is a stand-alone productive economic business carried out by an individual or business entity that is not a subsidiary or branch that is owned, controlled or part, either directly or indirectly, of a medium or large business that meets the criteria for small business as intended (Tulus T.H. Tambunan, 2019).

Apart from using monetary value as a criterion, a number of government institutions such as the Ministry of Industry and the Central Statistics Agency (BPS), have also used the number of workers as a measure to differentiate business scale between micro businesses, small businesses, medium businesses and large businesses. For example, according to the Central Statistics Agency (BPS), micro businesses are business units with a number of permanent workers up to 4 people, small businesses between 5 and 19 workers, and medium businesses from 20 to 99 people. Companies with a number of employees above 99 people are included in the large business category (Central Statistics Agency (BPS). (2021)

III. ECONOMETRIC DATA ANDMODELS

This research was conducted in Jakarta Bogor Depok Tangerang Bekasi. And the time used is from 2011-2020. The data was obtained using internet access, namely the Central Statistics Agency (https://www.bps.go.id). The population of this research is panel data on economic variables, namely, Economic Growth, Infrastructure, UMKM (micro, small, medium enterprises). Meanwhile, the sample is part of the population, namely Java Island, DKI Jakarta, Bogor, Depok, Tangerang, Bekasi, economic variable data for the last 10 year period from 2011-2020. Model Formulation This research uses multiple linear regression analysis and simple linear regression, multiple linear regression, namely regression where the model has more than one explanatory variable, namely several independent variables that are used to explain the behavior of the dependent variable. Simple linear regression analysis, namely one independent variable is used to explain one dependent variable. The regression analysis technique in this research uses the Ordinary Least Square (OLS) technique.

Model 1

$\hat{Y} = \beta 0 + \beta_{1it} X_{1it} + \beta 2_{it} X2_{it}$.

$\ln\hat{Y}_{it} = \alpha_i + \beta_1 \ln X_{1it} + \beta_2 \ln X_{2it}$

Multiple linear regression equation where the model has five independent variables (X1,X2) to the dependent variable Y.

IV. RESULTS AND DISCUSSION

Panel Data Regression Results

There is one selected model test result used to estimate panel data regression where Economic Growth (Dependent), Infrastructure, UMKM (independen)

Tabel 4.**Fixed Effect Model**

Dependent Variable: PE?
Method: Pooled Least Squares
Date: 02/28/24 Time: 17:34
Sample: 2011 2020
Included observations: 10
Cross-sections included: 5
Total pool (balanced) observations: 50

Variable	Coefficient	Std. Error	t-Statistic	Prob.

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C	3.089723	0.706470	4.373470	0.0001
IFT?	0.002699	0.001018	2.652743	0.0114
UMKM?	0.399879	0.040690	9.827462	0.0000
Fixed Effects (Cross)				
_JAKARTA--C	1.725708			
_BOGOR--C	-0.738662			
_DEPOK--C	-1.734106			
_TANGERANG--C	0.805909			
_BEKASI--C	-0.058848			

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.799395	Mean dependent var	12.54940
Adjusted R-squared	0.789258	S.D. dependent var	1.363651
S.E. of regression	0.037138	Akaike info criterion	-3.571508
Sum squared resid	0.055169	Schwarz criterion	-3.189103
Log likelihood	99.28769	Hannan-Quinn criter.	-3.425886
F-statistic	19.45350	Durbin-Watson stat	2.018486
Prob(F-statistic)	0.000000		

Based on resultsFixed Effect Model (FEM) in table 4 obtained with Eviews 10 where infrastructure, MSMEs are able to influence economic growth, the regression equation can be seen as follows:

$\hat{Y} = \alpha i + \beta_{1it} X_{1it} + \beta 2_{it} X2_{it}$

$\ln\hat{Y}it = \alpha i + \beta 1 \ln X1it + \beta 2 \ln X2it$

$PE = \alpha i - \beta_1 Infrastruktur + \beta_2 umkm$

$= 3.089723 + 0.002699X1 + 0.399879X2$

The explanation of the regression equation above is.

1) The regression value of (C) is 3.089723, meaning that if Infrastructure, MSMEs, increase by 1 unit, then Economic Growth increases by 3.089723, and the average value of Y is much greater than the average.
2) The regression value of infrastructure is 0.002699, decreases by 1 unit, then Economic Growth (PE) increases by 0.002699, and the average value of x is much smaller than the average Y, so it is inelastic.
3) The regression value of MSMEs is 0.399879, increasing by 1 unit, then Economic Growth increases by 0.399879, and the average value of x is much smaller than the average Y, so it is inelastic

Table 5. Uji f Simultaneously

Simultaneous Influence	R2	Adjusted R^2	Fhitung	p-value
infrastructure , UMKM	**79,9%**	**78,9%**	**19.4535**	**0,0000***

Based on the results of data processing with eviews 10 in table 5, the following are obtained: Calculated F value or F-statistic: 19.4535, with p value or Prob(F-statistic): 0.0000<0.05 then accept H1 or which means simultaneously all independent variables, namely: Infrastructure, MSMEs simultaneously have a significant influence in influencing the dependent variable, namely Economic Development (PE).

Test Results–t

a) Infrastructure on economic growth (PE) can be seen in the statistical probability of 0.0114 <0.05 (p value > 0.05) so that Ho is accepted and Ha is rejected, which means infrastructure is positive and has a significant effect on economic growth (PE).
b) UMKM on economic growth (PE) can be seen in the Prob.tstatistik of 0.0000<0.05 (p value

<0.05) so that Ho is accepted and Ha is rejected, which means that MSMEs are positive and have a significant effect on economic growth (PE).

V. CONCLUSIONS AND SUGGESTIONS

A. Conclusion

Infrastructure has a positive and significant effect on economic growth. Infrastructure has a very important role in driving economic performance. The condition of an area's infrastructure not only influences economic development in that area but also the surrounding areas. MSMEs have a positive and significant effect on economic growth. By increasing the number of MSMEs, new job opportunities can be opened, thereby reducing unemployment.

B. Suggestion

Further optimization in developing MSME actors, in making trading business permits (SIUP), and assistance so that MSME actors are smart and able to utilize technology such as the era of the digital economy, encouraging and increasing MSME taxpayer compliance with a scheme to simplify calculations, reporting and the imposition of one type of tax for MSMEs in accordance with Government Regulation Number 23 of 2018, so that all of this can make it easier for MSMEs to apply for funds, one of which is Popular Commercial Credit (KUR) with the aim of to increase the availability of financing and strengthen MSME capital

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BIBLIOGRAPHY

[1]. Kementerian Koperasi dan UKM Republik Indonesia. (2008). Undang-Undang No. 20 Tahun 2008 tentang Usaha Mikro, Kecil, dan Menengah. Jakarta: Pemerintah Indonesia.

[2]. Tambunan, T. (2019). UMKM di Indonesia: Perkembangan, Masalah, dan Kebijakan. Jakarta: Ghalia Indonesia.

[3]. Supriyadi, D. (2020). Strategi Pengembangan UMKM dalam Era Digital. Bandung: Alfabeta.

[4]. Badan Pusat Statistik (BPS). (2021). Statistik UMKM Indonesia 2021. Jakarta: BPS.

[5]. Todaro, M.P. dan Smith Stephen. C. 2003. Pembangunan Ekonomi di Dunia Ketiga. Edisi kedelapan. Jilid 2. Jakarta: Erlangga

[6]. Sadono, Sukirno. 2011. Makro Ekonomi Teori Pengantar. Jakarta: PT. Rajagrafindo Persada.

[7]. Jhingan, M. L. 2014. Ekonomi Pembangunan dan Perencanaan. Jakarta: Rajawali.

[8]. Sadono Sukirno. 2016. Makro Ekonomi Teori Pengantar. Jakarta : PT. Rajawali Pers.

[9]. Muana. Nanga. (2001). Teori Makro Ekonomi. Jakarta: Rajawali Press

[10]. SulistijoSidarto dan Budi Santoso, ProyekInfrastruktur dan SengketaKonstruksi, Depok: Prenadamedia Group, 2018.

[11]. (https://kbbi.kemdikbud.go.id/entri/infrastruktur, 2019.

[12]. Keputusan Menteri Perencanaan Pembangunan Nasional Nomor Kep. 82/M.PPN/HK/05/2015 tentangPenetapan Daftar RencanaProyekInfrastrukturTahun 2015. http://pkps.bappenas.go.id. September 2015.

[13]. Keputusan Menteri Perencanaan Pembangunan Nasional Nomor Kep. 156/M.PPN/HK/09/2015 tentangPerubahan Atas Keputusan Menteri Perencanaan Pembangunan Nasional Nomor Kep. 82/M.PPN/HK/05/2015 tentangPenetapan Daftar RencanaProyekInfrastrukturTahun 2015. 30 September 2015. Badan Perencanaan Pembangunan Nasional. Jakarta.

[14]. Warsilan, dan Akhmad Noor. 2015. "PerananInfrastrukturterhadapPertumbuhanEkonomi dan Implikasi pada Kebijakan Pembangunan di Kota Samarinda." MIMBAR: JurnalSosial dan Pembangunan 31(2):359–66. doi: 10.29313/mimbar.v31i2.1444

[15]. Kodoatie Robert J, SyariefRoestam. 2010. Tata Ruang Air. Yogyakarta: Andi Offset

[16]. A Karim, Adiwarman. 2012. Ekonomi Makro Islam. Jakarta: PT Raja GrafindoPersada.

[17]. Chaerunnisa, D. N. (2014) Pengaruhinfrastrukturterhadappertumbuhanekonomi di kotasukabumi: periodetahun 1990-2012. InstitutPertanian Bogor